

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



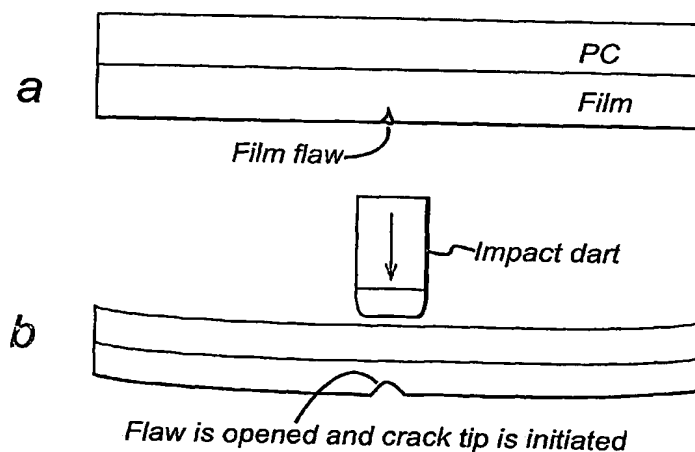
(43) International Publication Date
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number
WO 2004/089622 A1

- (51) International Patent Classification⁷: **B32B 27/08**, 3/00
- (21) International Application Number:
PCT/GB2004/001560
- (22) International Filing Date: 8 April 2004 (08.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0308028.0 8 April 2003 (08.04.2003) GB
- (71) Applicant (for all designated States except US): **UNIVERSITY OF WARWICK** [GB/GB]; Gibbet Hill Road, Coventry CV4 7AL (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SMITH, Gordon, Frederick** [GB/GB]; 31 Myton Crescent, Warwick CV34 6QA (GB). **KIRWAN, Kerry, Emmett, Arthur** [GB/GB]; 32 Stanway Raod, Earlsdon, Coventry CV5 6PJ (GB).
- (74) Agents: **BARNFATHER, Karl, Jon et al.**; Withers & Rogers, Goldings House, 2 Hays Lane, London SE1 2HW (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LAMINATE MATERIAL



(57) Abstract: A laminate material comprising two components, a first thermoplastic polymer substrate and a second thermoplastic polymer blown film; wherein the film and substrate are directly bonded one to another and where substantially one face or side of the substrate only is laminated with film; such that in use the resistance of the substrate to a localised impact on a non-laminated face is significantly reduced by the presence of the film layer.